

Assessment on iVP Development Line Equipment Functionality Buy Off – [May 10 '2025](#)

- Performing Equipment Functionality Buyoff on ESEC Soft Solder Die Attach for TO 220 at Smart Option site in Ipoh ,Perak
 - Heater Board Installation and Validation – Successfully Done.
 - Identify Strip Indexing Track Mismatch Lead Frame design – Initiate Track modification work.
- Performing Initial Set Up on TO252 Trim and Form Equipment
 - Conducted mechanical set up on tools and punches and verify the strip loading consistency.
 - Required optimum vacuum pressure supply to achieve consistent operation.
- Set up and Debug Fujjwa Conventional Mold System for TO252
 - Verify Machine Compatibility with Dummy Mold Shots and after Mold Cleaning.
 - Observed excessive mold bleed at the cull area.
 - Required fine tuning and plunger modification on eliminating the excess mold bleed.
- Set up and Debug Fujjwa Conventional Mold System for TO220
 - Completed the installation of top and bottom mold die heaters
 - Next installation of top and bottom cull block , pot and plunger.
 - Next Step : Validate with Dummy Mold Shots and Optimize Mold Parameter.

ESEC Soft Solder Die Attach (TO-220) Equipment Update

- **Stage 2 Buy-Off & Heater Board Validation**

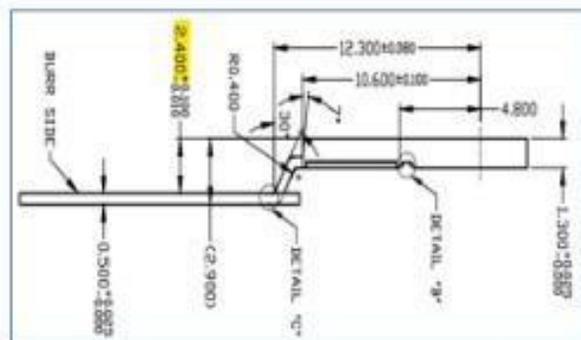
- Initial stage-2 buy-off passed; replacement heater board (after 2-month lead time) successfully powered up and tested and all functions nominal

- **Track Dimension Mismatch Identified**

- Existing machine track opening suited original lead-frame size; new TO-220 lead-frame is wider with a different downset, causing fit issues

- **Rework Plan & Timeline**

- Engaging local milling houses to compare current track vs. latest LF dimensions and propose modification scope & cost by WW21
- Parallel discussion with Smart Option to finalize rework pricing and schedule



TO-252 Trim & Form Machine – Initial Setup

- **Mechanical Setup Progress**

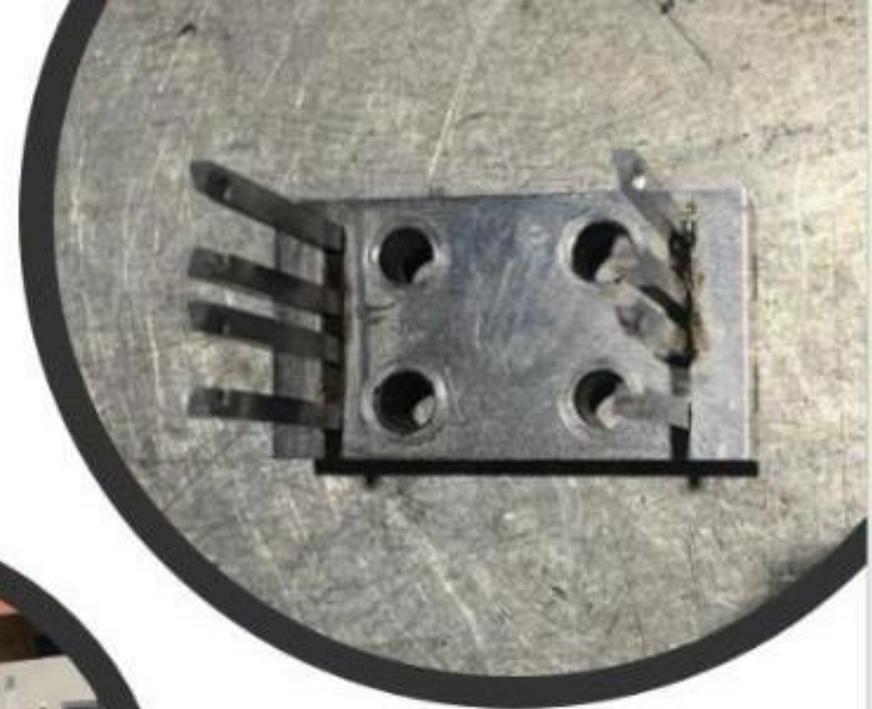
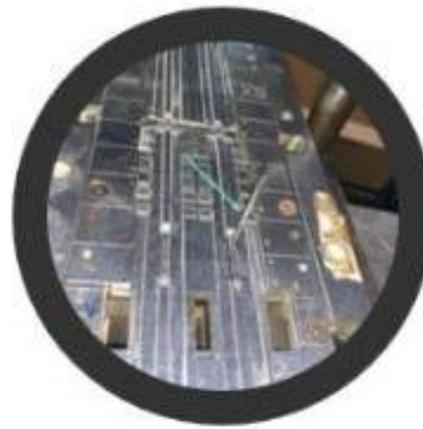
- Punch check through stripper insert – Passed
- HS singulation punch – Replaced
- Punch check through cutting die – In Progress

- **Issue Identified**

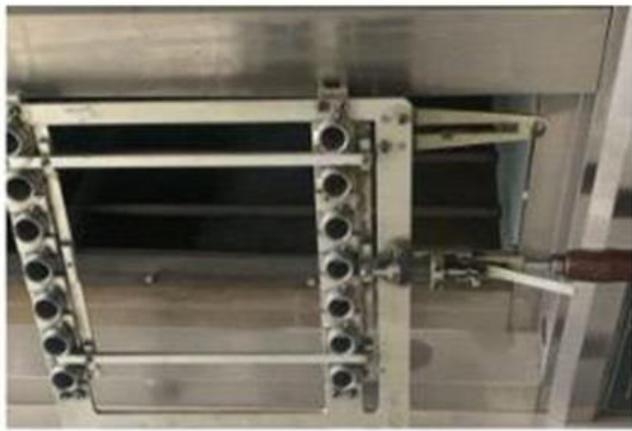
- Inconsistent incoming vacuum pressure detected during setup

- **Next Steps**

- Investigate and stabilize vacuum supply to ensure consistent operation before full qualification



TO-252 Fujiwa 300T Conventional Mold – Setup & Debug Status



- **Mold Verification in Progress**

- Verified TO-252 molding short vs. machine compatibility
- Pallet loading used to assess mold condition

- **Issue Observed**

- Heavy flash detected at cull area

- **Corrective Action**

- Engaged with RC team tooling fabrication house to fine-tune the mold tool for flash elimination and improved molding quality



TO-220 Fujiwa 300T Conventional Mold – Setup & Verification

- **Heater Installation Progress**
 - Top & bottom heaters successfully installed on mold machine
- **Next Assembly Steps**
 - Reinstallation of top & bottom cull block, pot, and plunger planned once heater setup is completed
- **Verification Plan**
 - Conducting mold dummy short run to validate lead frame design before mold parameter optimization

